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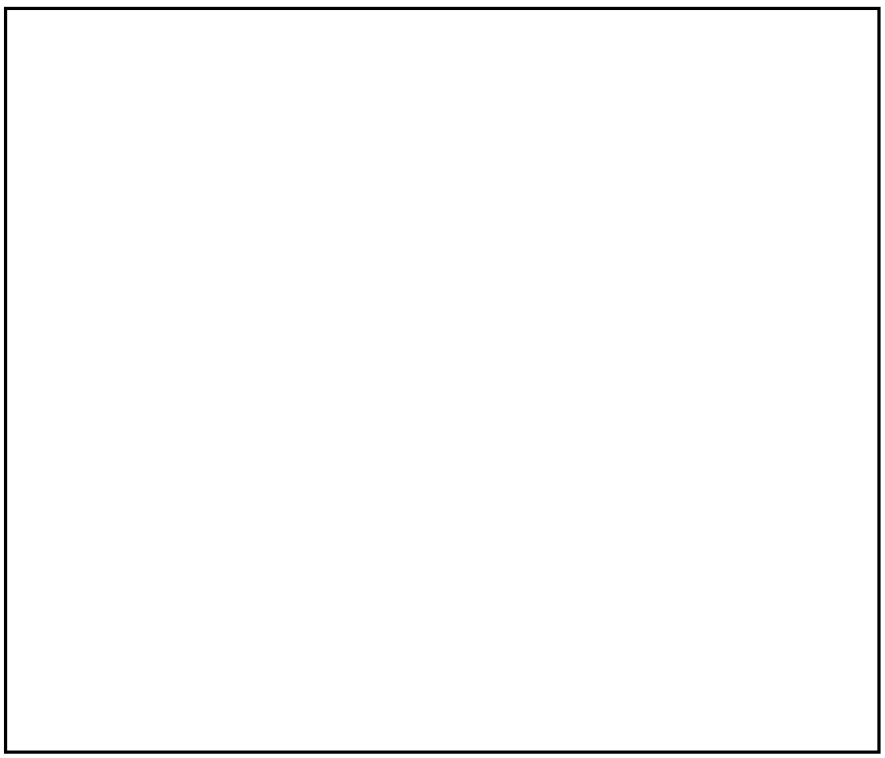

Declass Review by
NIMA/DOD

Approved For Release 2003/01/28 : CIA-RDP78B04770A002000020024-3

R-102-69

PROGRESS REPORT NO. 6
ADVANCED LIGHT TABLE

Report Period: 1 December 1968 to 1 January 1969

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15 January 1969

1. SUMMARY OF PROGRESS

During the report interval 1 December to 1 January, design finalization, fabrication and assembly continued in all areas of the prototype light table. Progress by areas may be summarized as follows:

1) Upper Unit of the Light Table
   a) Light box assembly (light grid, shade and controls): Design - 85% complete, assembly - 75% complete.
   b) Lower light box assembly (manual, motor drive system and controls): Design - 95% complete, assembly - 30% complete.
   c) Fixed reel support: Design - 95% complete, assembly - 10% complete.
   d) Movable reel support: Design - 90% complete, assembly - 10% complete.
2) Base Unit
   a) Tilt drive and transformer compartment: Design - 65% complete, assembly - 15% complete.
3) Electrical and Electronic Control Circuits
   a) Prototype units designed and completed.
   b) Selection of control hardware - 90% complete.
4) Manufacturing Releases - 90% complete.
5) Overall project completion is approximately 70% complete.

2. ACTIVITY DURING REPORT INTERVAL

2.1 Illumination System

Design modification on the light grid and reflector assembly is being made to obtain the 10% eveness of intensity across the viewing

area; however, the minimum design requirement of 2000 ft.-lamberts of intensity as required by specification has been attained.

2.2 General Activity

The design is 90% completed in the major areas of the light table, therefore most activity was limited to minor design changes coincident with the fabrication of parts and of subassembly of light table components. Close manufacturing support is being maintained by Engineering to insure a reliable and well-functioning prototype table of good quality.

3. PROJECT ENGINEER'S REVIEW (VISIT JANUARY 8 AND 9, 1969 AT CONTRACTOR'S FACILITY)

Although this discussion is beyond the report interval it is being included in this report to expedite the documentation of the verbal discussions between the project sponsor's project engineer and

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3.1 Light Table Operation and Design

3.1.1 Movable Reel Support. A safety feature will be added to the movable carriage to prevent accidental release and dropping of the film spool. The carriage will be limited in its axial travel to prevent accidental release by reworking the present traverse rod detent notches. The film width selection detent knob assembly will be provided with indication to show the operator when the detent knob is not locked in the detent notch. The detent knob will, by pulling up and twisting, be locked out of detent for loading of film spools. The inclusion of this safety feature which by agreement is necessary, will negate the feature originally provided in the present design to meet the following

specification requirement: (Paragraph 4.3) "The movable bracket (carriage) is to allow for varying width of spools, but it must be possible to lock this bracket in position before the spool is loaded."

3.1.2 Isolation of Transformers. The transformers will be mounted on gasket material to isolate them from the case and prevent possible noise from resonant vibrations set-up during operation.

3.1.3 Reel Shaft Key. The film spool spindle shaft on the movable carriage (free rotation end) will be reworked to remove the key. The film spool can now be loaded without regard to location of the shaft key with respect to the key slot in film spool. This alignment which was previously difficult to do can now be eliminated.

3.1.4 Speed Control Knob. The present speed control knob will be replaced with a round scalloped knob to present a more positive and comfortable "feel" to the operator.

3.1.5 Weight. An approximate total weight of 80 lbs. has been established for the light table by estimation and by the weighing of all available parts and assemblies. The design goal by specification was 60 lbs.

3.2 Briefing Boards. (Specification Paragraph 4.5.9) There will be three briefing boards as follows:

3.2.1 Horizontal View. This view will be ink lined, color shaded and have all call outs, annotations and descriptions.

3.2.2 Tilted View. This view will show light box in horizontal position and tilted up. The drawing will show full color scheme and contain only the title.

3.2.3 Tilted View. This view will show light box in vertical position and tilted up. The drawing will be ink lined and color shaded. The view will include the film spools and film path for 6.5 inch film.

4. PROGRAM FOR NEXT INTERVAL

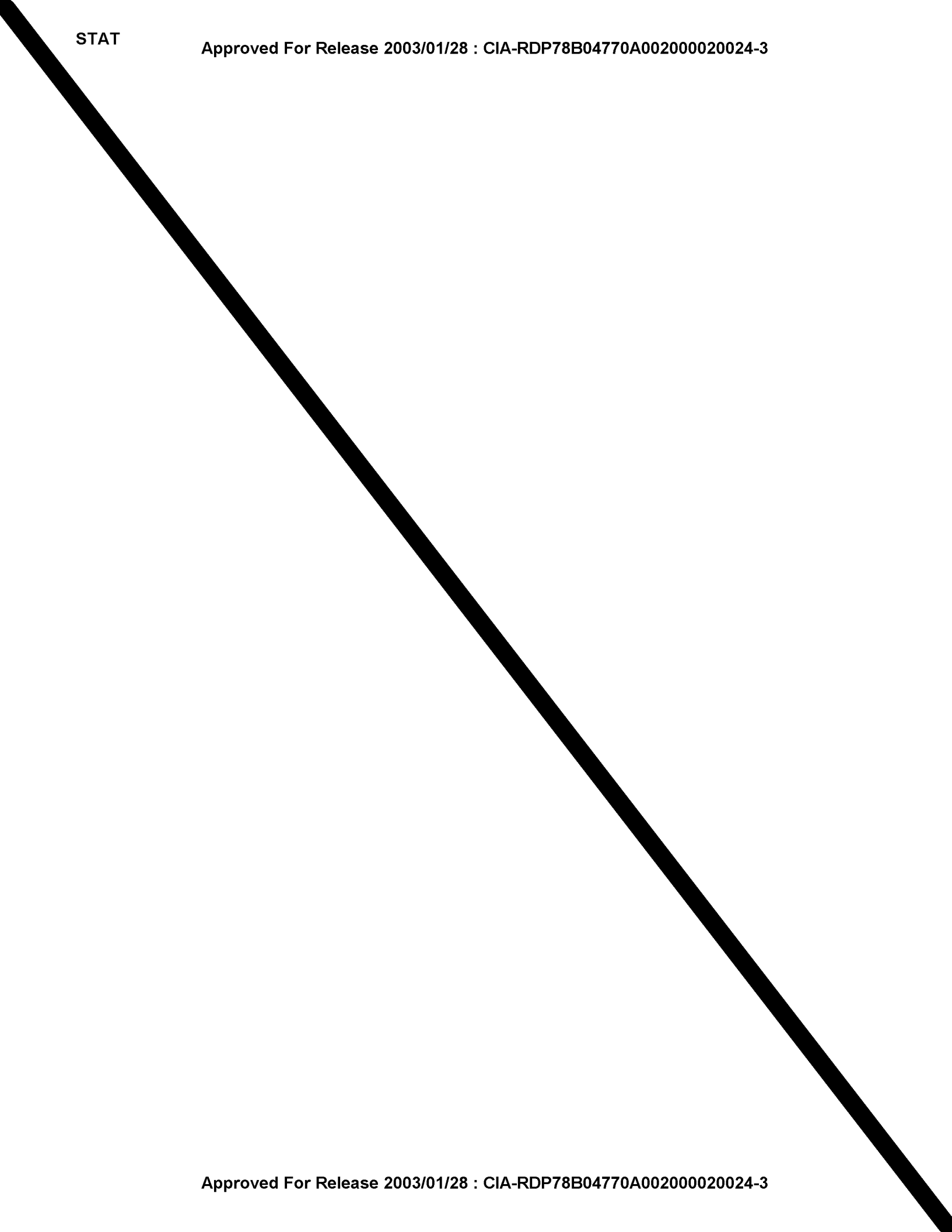
4.1 Continued design and release of parts in all areas to obtain 100% release to manufacturing.

4.2 Subassembly and major assembly completion.

4.3 Film transport system test.

5. ORAL AGREEMENTS ON TECHNICAL MATTERS

Discussed under Paragraph 3.



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